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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,025	02/25/2004	Sampo Sovio	4208-4169	9035

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EXAMINER

AUGUSTIN, EVENS J

ART UNIT PAPER NUMBER

3621

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/785,025		SOVIO ET AL.	
	Examiner		Art Unit	
	Evans Augustin		3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/30/04</u> | 6) <input type="checkbox"/> Other: _____ |

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Status of Claims

1. Claims 1-48 have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3, 4, 7-18, 19, 20-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cofta (U.S 20010005832), in view of Di Luoffo et al. (U.S 20040250066).

As per claims 1, 2, 3, 4, 7-18, 19, 20-37, Cofta discloses a computer system for carrying out transactions and in particular, but not exclusively to a payment system. The computer system includes:

- A system for performing a cashless transaction, comprising a communications device, a point of sale device and a financial institution (page 1, ¶ 9)
- The connection to the point of sale device can use any other radio frequency. For example, the "Bluetooth" proposed standard can be used. Bluetooth provides low power radio frequency signals, which may be in the giga hertz range (page 3, ¶ 34)
- Cofta Teaches that any other suitable frequency radio or otherwise can be used for communications between the point of sale device and the communications device (page 3, ¶ 34)

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- The communication device has a secret key stored on the SIM card or the like (page 3, ¶ 45)
- The system generates a random number which along with secret key are used in a manner which verifies the identity of the communication device (page 4, ¶ 45)
- Once the network has authenticated the communication device, communications between the communication device and the network are permitted, those communications being encrypted (page 4, ¶ 45)
- The user communication device can be arranged with a smart card (page 4, ¶ 61)
- The user communication device may be a mobile phone, a dedicated device for use in payment of transactions or can be any other suitable device, such as a personal organizer or the like (page 5, ¶ 69)

Cofta did not explicitly describe a method/system in which uses smartcard to store and verify authentication information during a wireless transaction. However, Di Luoffo et al. describe an invention that relates to smart cards and, more particularly, to systems for performing secure data transactions with embedded chips in smart cards. The invention comprises of:

- "Smart card" means a card used for personal or business transactions comprising at least a processor and a memory capable of supporting an operating system, application programs, storage of chip holder personalization data, application data and other data as may be required by the issuer of the smart card (page 4, ¶ 87)
- "Symmetric cryptography" means a cryptographic technique that uses the same secret key for both the originator's and the recipient's transformation (page 4, ¶ 89)

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- "System keys" means a set of cryptographic keys used to create trusted nodes for communication within a smart card system including without limitation a system authentication key, a system encryption key and a system digital signing key." (page 4, ¶ 90)
- Data is either message authenticated coded or message authentication coded encrypted using a card keys that are generated at mobile device so that the generated card keys match the card keys installed on the chip at personalization of smart card (page 8, ¶ 134)

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to construct a system that would employ smartcard to store and verify authentication information during a wireless transaction. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement a system that would smartcard to store and verify authentication information during a wireless transaction because smart cards provide secure storage for data, including cryptographic keys used to carry out secure transactions, and are capable of performing cryptographic operations (page 1, ¶ 5)

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cofta (U.S. 20010005832) as modified by Di Luoffo et al. (U.S. 20040250066), in view of Pertilla et al. (U.S. 20040243519).

The teachings of Cofta and Di Luoffo et al. have been discussed above. Cofta as modified by Di Luoffo et al. did not explicitly teach an invention in which the system uses the

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Bluetooth address of the wireless device as a variable for authentication. However, Pertilla et al. describe a system, method and apparatus for processing electronic commerce involving radio communication technology. The system uses the Bluetooth address of the mobile terminal as ID for authentication purposes (page 3, ¶ 31).

Therefore, in view of Pertilla et al. teaching, it would have been obvious to an artisan at the time the invention was made to construct a system that uses the Bluetooth address of the wireless device as a variable for authentication. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement a system that uses the Bluetooth address of the wireless device as a variable for authentication because the Bluetooth address is a unique number used by devices to refer to each other when sending information through a wireless network. The uniqueness of the Bluetooth address allows it to be used as an authentication variation.

5. Claims 5, 38-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cofta (U.S. 20010005832) as further modified by Di Luoffo et al. (U.S. 20040250066) and Pertilla et al. (U.S. 20040243519), in view of Treyz et al. (U.S. 6587835).

The teachings of Cofta, Di Luoffo et al. and Pertilla et al. have been discussed above. Cofta, Di Luoffo et al. and Pertilla et al. did not explicitly teach an invention that has a short range area under 10 cm and uses has different policy constraints with regard to authentication, verification or completion of a wireless transaction between user mobile device and a point of sale device.

However, Treyz et al. describe an invention that relates to systems based on handheld computing devices, and more particularly, to systems based on handheld computing devices that assist users in shopping and in performing wireless transactions. The invention includes:

- A handheld device with smartcard circuitry integrated therein (column 18, lines 1-21)
- Wireless radio frequency with ranges from a fraction of a foot to a few hundred feet (column 13, lines 24-26)
- Certain types of transactions may be prohibited entirely (e.g., toy purchases in the example of FIG. 75) and other types of transactions may have monetary limits. Another type of limit that may be established involves the dates on which the handheld computing device may be used for financial transactions (column 46, lines 54-62)
- When the smart card is attached to handheld computing device, purchasing is authorized. When the smart card is not attached to handheld computing device, wireless transactions are prohibited. These approaches are illustrative. Any suitable approaches for verifying the user's identity may be used if desired (column 18, lines 53-58)
- User input interface may be, for example, an on-screen keyboard, a keyboard, a touch screen, a touch pad, keys or buttons, a microphone (e.g., for voice commands), a pointing device (e.g., a trackball or mouse, etc.), etc (column 16, lines 38-41)

Therefore, in view of Treyz et al. teaching, it would have been obvious to an artisan at the time the invention was made to construct a system that uses the Bluetooth range of under 10 cm because one of the industrial specification of Bluetooth at 1mW is transmission of 10 centimeters (3.9 inch), with a maximum of 1 meter (3.2 ft).

Products are available in one of three power classes:

- Class 3 (1 mW) is the rarest and allows transmission of 10 centimeters (3.9 inch), with a maximum of 1 meter (3.2 ft)
- Class 2 (2.5 mW) is most common and allows a quoted transmission distance of 10 meters (32 ft)
- Class 1 (100 mW) has the longest range at up to 100 meters. This class of product is readily available

In view of Treyz et al. teaching, it would have also been obvious to an artisan at the time the invention was made to construct a system that has different policy constraints with regard to authentication, verification or completion of a wireless transaction between user mobile device and a point of sale device, because it would make the transaction more secure, especially during fraudulence/theft.

Conclusion

6. *Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that if the applicant is preparing to respond, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.*

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Fox et al. (US 5943624)** - This invention relates to smartcard electronic devices and, more particularly, to the incorporation of smartcard devices in a cellular telephone for enhanced verification, security and accessibility to data stored on the smartcard.
- **Elston et al. (US 20020143655)** - This invention relates to electronic shopping systems. In particular the invention relates to a system enabling mobile customers to remotely place orders with any one of a group of affiliated merchants for pick up by the customer at a specific merchant location
- **Alie (US 20030055738)** - The present invention concerns a system and method for effecting an electronic transaction with strong multi-factor end user authentication, remotely using a wireless or a non-wireless personal mobile device. Transactions which can be effected using the system and method of the present invention, include payment, access to a network, and the like

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evens Augustin whose telephone number is 571-272-6860. The examiner can normally be reached on Monday thru Friday 8 to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Trammel can be reached on 571-272-6712.

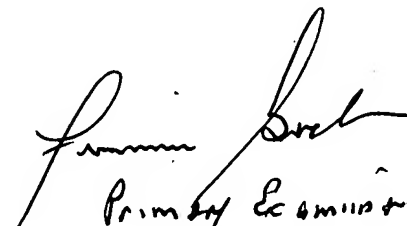
Any response to this action should be mailed to:

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Commissioner for Patents
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Alexandria, VA 22313-1450

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-6584.

Evens J. Augustin
August 15, 2005
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Primary Examiner
3621